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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,355	12/12/2003	Michael A. Rothman	INTEL/17854	3555

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HANLEY, FLIGHT & ZIMMERMAN, LLC
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CHICAGO, IL 60606

EXAMINER

ROMANO, JOHN J

ART UNIT	PAPER NUMBER
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2192

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/734,355

Applicant(s)

ROTHMAN ET AL.

Examiner

John J. Romano

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/16/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims **1-20** are pending in this action.

Information Disclosure Statement

2. The Information Disclosure Statements filed on August 16th, 2006 has been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims **7, 14** and **18** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "host-protected architecture" in claims **7, 14** and **18** are relative terms which renders the claims indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It should be noted that the examiner has interpreted the term to mean non-volatile memory, thereby protected from power failure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **1-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Extensible Firmware Interface Specification", Intel Corporation, Version 1.10, December 1, 2002, 1084 pages, (art of record & hereinafter **EFI**) in view of **obviousness**.

In regard to claim **1**, **EFI** discloses:

- *"A method of updating code comprising: receiving a pre-boot code update..."* (E.g., see Section "1.1 EFI Driver Model Extension"), wherein a method for accessing code in a pre-boot environment is disclosed.
- *"...storing the pre-boot code update to a first non-volatile memory if the pre-boot code update fits within an allocated space in the first non-volatile memory..."* (E.g., see Section 5-78 – 5-79, "Description"), wherein the image is loaded into the source buffer, wherein if "BootPolicy" is TRUE but manager is attempting to load "Filepath", which may be stored on a FLASH memory as addressed herein-below.

- "...reading the pre-boot code update; implementing the pre-boot code update..." (E.g., see Section 11-3), wherein the file is loaded to be implemented.
- "...setting an indication that a pre-boot code update is to be implemented...clearing the indication that the pre-boot code update is to be implemented." (E.g., see Section 15-89), wherein a "BootAuthorizationCheckFlag" parameter is disclosed, wherein the flag is set and cleared as is old and well known in the art of programming for the known benefits. Also, see 11-3, "boot policy".

But **EFI** does not expressly disclose implementing a pre-boot firmware update. However, one of ordinary skill in the art, at the time the invention was made would have been motivated to use the framework disclosed in the Extensible Firmware Interface Specification to update firmware for the benefits known in the art of updating. The suggestion to do so was disclosed by **EFI**, (See Section 1-2, last paragraph), wherein, the information contained in the EFI Specification can be used by firmware vendors to implement EFI firmware. **EFI** also expressly discloses "updating EFI boot services" (See Section 1-2, third paragraph) in the pre-boot environment.

In regard to claim **2**, the rejections of base claim **1** are incorporated. Furthermore, **EFI** discloses:

- "...writing the pre-boot code to a second non-volatile memory if the pre-boot code update does not fit within the allocated space in the first non-volatile memory and writing in the first non-volatile memory a

pointer to the pre-boot code update stored in the second non-volatile memory." (E.g., see Section 5-78 – 5-79, "Description"), wherein the image is loaded into the source buffer and if it does not fit within the source buffer a pointer to the image in a secondary memory. See Section 2-20 wherein the driver is loaded from both volatile and non-volatile memory.

But **EFI** does not expressly disclose "a second non-volatile memory" specifically with a pre-boot code update. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to store a program in a second non-volatile memory. The motivation to do so comes from the teaching of **EFI** (see Section 1-2, first paragraph), wherein "one purpose of the EFI Driver Model is to provide a replacement for "PC-AT"-style option ROMs." **EFI** also discloses different types of non-volatile memory (See Section 2-20, "2.5.2 Driver Initialization"), wherein Flash memory is old and well known in the art to be employ firmware on startup and load files from a second non-volatile memory (for the benefits known in the art – See O'Neill below). Therefore, it would have been obvious to store larger code segments than could be reasonably stored in a Flash memory in non-volatile memory to be subsequently loaded.

In regard to claim **3**, the rejections of base claim **2** are incorporated.

Furthermore, **EFI** discloses:

- "...a *portion of a mass storage device.*" (E.g., see Section 2-20, "2.5.2 Driver Initialization").

In regard to claim **4**, the rejections of base claim **1** are incorporated.

Furthermore, see claim **2**.

In regard to claim **5**, see claim **1** and ("Introduction" section 1-1), wherein an abstract specification opens a route to replace firmware code over time.

In regard to claim **6**, the rejections of base claim **1** are incorporated.

Furthermore, see claim **2**.

In regard to claim **7**, the rejections of base claim **1** are incorporated.

Furthermore, **EFI** discloses:

- "...stored in a host-protected architecture." (E.g., see Section 2-20, "2.5.2 Driver Initialization").

In regard to claims **8-14**, this is an article of manufacture version of the claimed method discussed above, in claims **1-7**, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see **EFI**, computer readable medium (E.g., see Section 2-20, "2.5.2 Driver Initialization"), wherein instructions to implement the process may be stored.

In regard to claim **15**, see claims **1** and **6**. Furthermore, **EFI** discloses a system comprising a network connection and a non-volatile memory (E.g., see Section 2-20, "2.5.2 Driver Initialization").

In regard to claims **16-20**, this is a system version of the claimed method discussed above, in claims **2, 4, 7** and **5**, respectively, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see **EFI**, (E.g., see Section 2-20, "2.5.2 Driver Initialization"), a system is disclosed.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Stewart, US 6,272,629, wherein pre-boot services in option ROM Flash memory is disclosed.
- Lee, US 2006/0010317, wherein a pre-boot authentication system is disclosed.
- O'Neill, US 2003/0182414, wherein a firmware update on flash memory (first non-volatile memory) comprises a pointer to a second non-volatile memory to provide fault tolerance (See paragraph 131, 142 & 145).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Romano whose telephone number is (571) 272-3872. The examiner can normally be reached on 8-5:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJR



TUAN DAM
SUPERVISORY PATENT EXAMINER